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9

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/550,981	02/01/2006	Kazue Watanabe	F-8846	8317
28107 7590 09/27/2007 JORDAN AND HAMBURG LLP 122 EAST 42ND STREET SUITE 4000 NEW YORK, NY 10168			EXAMINER REDDY, KARUNA P	
			ART UNIT 1713	PAPER NUMBER
			MAIL DATE 09/27/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/550,981	Applicant(s) WATANABE, KAZUE	
	Examiner Karuna P. Reddy	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☒ Claim(s) 1-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is in response to the amendment filed on July 25, 2007.

Applicants amended claims 1-9 and 11. Claims 1-11 are currently pending in the application.

Claim Objections

2. Claims 1-11 are objected to because of the following informalities: Claims 1 and 7 recite a particle size of 0.2 to 0.5 mm. In light of the specification the particle size is interpreted by the examiner as 0.2 to 0.5 μm . Appropriate correction to the typographical error is required.

Claims 2-6 are dependent on claim 1 and claims 8-11 are dependent on claim 7.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:
1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shih et al (US 6, 153, 288) in view of Nozaki et al (US 2001/0039306 A1).

Shih et al disclose a coatable composition comprising a pigment dispersed in or mixed with a binder, which comprises an ethylene-vinyl acetate (EVA) emulsion polymer¹ and at least one water-soluble cationic polymer (column 1, lines 40-44). In example 4, ink-receptive composition containing a single cationic water soluble polymer is prepared by blending components in the order listed: 9 g Airflex 7200 that is an EVA emulsion polymer, 10 g Agefloc Wt50SLV i.e. poly(allyldimethylammonium chloride) which reads on water soluble cationic polymer of claim 1 having formula of claim 6, i.e. polymer of a salt of $\text{CH}_2=\text{CH}-\text{CH}_2-\text{NHR}$ and silicron which reads on the pigment of instant invention (column 8, lines 13-16). Furthermore, pigments useful include materials that increase the opacity and/or modify the porosity of coated substrate. Inorganic pigments are especially preferred and include silicic acid, which reads on the anionic functional

¹ US 2002/0086745 A1 of Rajagopalan is included as a reference to show that ethylene-vinyl acetate copolymer is an anionic polymer (paragraph 0108).

substance².

The prior art is silent with respect to solids content of the resin in aqueous dispersion and the mean particle diameter; resin containing acrylic monomer and a vinyl acetate monomer.

However, Nozaki et al teach aqueous dispersions that provide easy coating by impregnation. Suitable aqueous dispersions of the ethylene-vinyl acetate copolymers preferably have a solids content of 25 to 75 wt%, a particle diameter of 0.1 to 15 μm , a viscosity of 50 to 9,000 cp (paragraph 0016). Suitable aqueous dispersions of the ethylene-vinyl acetate-acrylic ester copolymers preferably have a solid content of 25 to 75 wt%, a particle diameter of 0.1 to 15 μm , a viscosity of 50 to 9,000 cp (paragraph 0019). Therefore, it would have been obvious to one skilled art at the time invention was made to use the aqueous dispersion of ethylene-vinyl acetate copolymers or ethylene-vinyl acetate-acrylic ester copolymers with a solids content of 25 to 75 wt%, a particle diameter of 0.1 to 15 μm and a viscosity of 50 to 9,000 cp in the coating composition of Shih et al and obtain a composition that provides for easy coating by impregnation.

Response to Arguments

² US 4, 576, 864 of Krautter et al is included as a reference to silicic acid as an anionic substance (column 10, lines 44-45).

Art Unit: 1713

6. The objection to claim 1 and rejection under 35 U.S.C. § 112 first paragraph is withdrawn in light of the amendments.
7. Applicant's arguments with respect to claims 1, 3-7 and 9-11 under 35 U.S.C. 102(b) as being anticipated by Shih et al (US 6, 153, 288) have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that the previous office action dated January 25, 2007 did not specifically address the rejection of claims 4 and 5, it is noted that ethylene-vinyl acetate copolymers are anionic in nature (see footnote 1). The examiner inadvertently omitted the reference to silicic acid in prior art of Shih et al (see footnote 2), which reads on the anionic nature of functional substance.

8. Applicant's arguments with respect to claims 2 and 8 under 35 U.S.C. 103(a) as being unpatentable over Shih et al (US 6, 153, 288) in view of Su (US 6, 124, 417) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.**

See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karuna P. Reddy whose telephone number is (571) 272-6566.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through

Art Unit: 1713

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Karuna P Reddy
Examiner
Art Unit 1713

/KR/



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